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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,454	12/09/2003	Paul E. McKenney		4652

7590 05/04/2005

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EXAMINER

VU, TRISHA U

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/731,454

Applicant(s)

MCKENNEY, PAUL E.

Examiner

Trisha Vu

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,15-17,24,25 and 31 is/are rejected.
- 7) ☒ Claim(s) 2,3,5-14,18-23 and 26-30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 1-31 are presented for examination.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 15-17, 24-25, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ho (5,615,373).

As to claim 1, Ho teaches a method for dynamically determining a lock form in a multiprocessor, comprising: (a) maintaining first and second system-wide measures (by servers 14, 16,...) of read and write acquisitions (system statistics: file read access rate, file write access rate, system read/write ratio,...); and (b) determining a lock form (locks with different lifetimes) based upon at least some of said measures (Figs. 1-2, col. 4, lines 9-48 and claim 11).

As to claim 4, Ho further teaches switching to the lock form from another lock form (determining another lock lifetime) (col. 6, lines 21-45).

As to claim 15, Ho further teaches periodically updating at least some of said system-wide measures (col. 5, lines 1-46 and col. 6, lines 21-45).

As to claim 16, Ho further teaches at least some of said second system-wide measures are selected from a group consisting of: a digital filter, a weighted

average, a sliding window average, a finite impulse response, and a central data structure (e.g. in server 14) (col. 5, lines 1-45 and col. 6, lines 5-45).

As to claim 17, Ho teaches a computer system comprising: multiple processors (Fig. 2); first and second system-wide measures of read and write acquisitions of said processors (system statistics: file read access rate, file write access rate, system read/write ratio); and a lock manager (by servers 14, 16,...) adapted to select a lock form responsive to at least some of said measures (Figs. 1-2, col. 4, lines 9-48 and claim 11).

As to claim 24, Ho teaches in a multiprocessor system, an article comprising: a computer-readable signal bearing medium (Figs. 1-2); means in the medium for maintaining first and second system-wide measures of read and write acquisitions (system statistics: file read access rate, file write access rate, system read/write ratio,...); and means in the medium for selecting a lock form (locks with different lifetimes) responsive to at least some of said measures (Figs. 1-2, col. 4, lines 9-48 and claim 11).

As to claim 25, Ho further teaches the medium is selected from a group consisting of: a recordable data storage medium and a modulated carrier signal (file servers 14, 16,... or the whole computer system 10) (Fig. 1 and col. 3 line 47 to col. 3 line 8).

As to claim 31, Ho further teaches at least some of said second system-wide measures are selected from a group consisting of: a digital filter, a weighted average, a sliding window average, a finite impulse response, and a central data structure (e.g. in server 14) (col. 5, lines 1-45 and col. 6, lines 5-45).

*Allowable Subject Matter*

3. Claims 2-3, 5-14, 18-23, 26-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 2, 18, 26 include the limitation of the lock form is selected from the group consisting of: a distributed reader-writer lock, a centralized reader-writer lock, and an exclusive lock, which is not shown by the prior art of record in the combination as disclosed and claimed.

Claims 5, 20, 27 include the limitation of the lock form is a distributed reader-writer lock, and wherein said determining step is responsive to the system-wide measure of write acquisitions and the system-wide measure of read acquisitions, which is not shown by the prior art of record in the combination as disclosed and claimed.

Claims 8, 21, 28 include the limitation of the lock form is a centralized lock, and wherein said determining step is responsive to the system-wide measure of write acquisitions and the system-wide measure of read acquisitions, which is not shown by the prior art of record in the combination as disclosed and claimed.

Claim 9 includes the limitation of maintaining a system-wide measure of read-hold duration, which is not shown by the prior art of record in the combination as disclosed and claimed.

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Claims 22 and 29 include the limitation of the lock form is a centralized lock, and wherein the selecting a lock mode is responsive to the system-wide measure of read acquisitions and a system-wide measure of read-hold duration, which is not shown by the prior art of record in the combination as disclosed and claimed.

Claims 23 and 30 include the limitation of the lock form is an exclusive lock and wherein said lock manager is responsive to a system-wide measure of read-hold duration, which is not shown by the prior art of record in the combination as disclosed and claimed.

### ***Response to Arguments***

Applicant's arguments filed 02-18-05 have been fully considered but they are not persuasive:

With respect to Applicant's argument of "lock form" on page 7 of the Remarks that "Ho does not determine the type of lock that may be appropriate based upon system measures. Rather, the mode of Ho pertains to the lifetime, i.e. duration, of the lock", it is noted that "*lock forms*" are interpreted as locks with different lifetimes as taught by Ho (Figs. 1-2, and col. 4, lines 9-48), i.e. *lock with one lifetime is one lock form* and *lock with another lifetime is another lock form*.

Regarding Applicant's argument on page 8 of the Remarks "Ho neither teaches or implies Applicant's limitations of determining a lock form, wherein the form pertains to the form of a reader-writer lock or an exclusive lock, as apposed to Ho which determines a duration of a lock form", it is noted that the feature(s) upon which applicant relies (i.e., *the mode pertains to the form of reader-writer lock*) are not recited in the rejected

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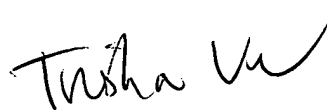
claim(s) (e.g. claim 1). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The Examiner has indicated Allowable Subject Matter of this feature (e.g. in claim 2) if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha Vu whose telephone number is 571-272-3643. The examiner can normally be reached on Mon-Thur and alternate Fri 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Trisha Vu  
Examiner  
Art Unit 2112



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